

Office Action Summary

Application No.
09/009,320

Applicant(s)
Arquilevich et al

Examiner
Frederick E. Cooperrider

Group Art Unit
2723



☒ Responsive to communication(s) filed on Sep 20, 1999

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1 and 4-24 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☒ Claim(s) 15-24 is/are allowed.

☒ Claim(s) 1, 4, 5, 7, and 9-14 is/are rejected.

☒ Claim(s) 6 and 8 is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1,4,5,7,9-11,13,14 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 4,734,868 to DeLacy.

Regarding claims 1,7,13,14, DeLacy teaches a method for calibrating a value for a swath height error adjustment of a given inkjet printhead to avoid a banding artifact on a printed media sheet, comprising the steps of: printing on a media sheet with the given inkjet printhead (see column 10 lines 34-44) a test plot having a plurality of non-overlapping areas, each area being a common image printed using a different value of the swath height error adjustment; receiving an input for indicating which one area of the plurality of areas the common image exhibits either the absence of or the least amount of the banding artifact within said common image as perceived by a person viewing the media; and setting the value to the swath height error adjustment corresponding to the indicated one area (column 11 lines 49-53).

Note that the DeLacy adjustment inherently executes the various limitations by reason of the following: in selecting the adjustment to make the paper stepping distance exactly the width of each swath (column 11 lines 49-51), the operator will run a test plot at a first arbitrary setting and will then vary that setting and run a second non-overlapping test plot at a second setting. The

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operator will continue varying the setting and observing the result of each non-overlapping test plot area and finally will select the setting deemed best to eliminate the banding artifact.

Regarding claims 4,9,11, DeLacy additionally teaches making different settings based on media type (column 2 line 35 through column 3 line 32). Note that the problem of paper shrinkage (column 2 line 38) and thickness of media (column 2 at line 57 and line 68 and column 3 beginning at line 1) are considered to inherently require different settings as part of a printing method.

Regarding claims 5,10, DeLacy additionally inherently teaches the step of determining as occurring after the step of identifying (since the media type necessarily must be identified and inserted into the printer for the calibration process) and having the second value as a function of the first value and the identified media type (since the operator will automatically start the process using the current setting).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 4,734,868 to DeLacy. DeLacy (column 4 line 18) demonstrates that banding artifacts are known to be sensitive to media type.

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Allowable Subject Matter

5. Claims 6,8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 15-24 are allowable.

Response to Arguments

6. Applicants' arguments filed September 20, 1999, have been fully considered in view of the amendment, but they are not persuasive relative to claims 1,7,13-15 as rejected in the first office action based on the generic calibration process for the swath error parameter. The applicants have declined to discuss the calibration procedures currently used in manufacturing, and the examiner presumes that such silence does not violate the applicants' duty of candor and disclosure with the patent office. However, in view of the applicants' silence, DeLacy has been used to demonstrate that it is already known in the art to utilize an adjustment procedure for the swath setting. The applicants do not assert that they have discovered the concept of swath height error adjustment nor the concept of calibrating such parameter nor the concept of a printer having a single printhead. The prior art search to date suggests that the novelty, based on the data in the patent system, is that of embedding a routine calibration process in the printer memory and making this process readily available to an operator to adjust this parameter for component wear and material type. The applicants have also expanded this concept by the automatic adjustment of this parameter based on material type and projected component wear.

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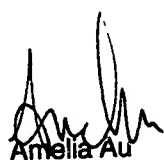
Conclusion

7. **THIS ACTION IS MADE FINAL.** The applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred Cooperrider at telephone number is (703) 305-2918. The examiner can normally be reached on Tuesday - Friday from 6:30 AM - 4:00 PM and on alternate Mondays from 6:30 AM - 4:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au, can be reached on (703) 308 - 6604. The fax phone number for the organization where this application is assigned is (703) 306 - 5406 or (703) 308 - 5397. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305 - 3800/4700.

fec
October 20, 1999


Amelia Au
Supervisory Patent Examiner
Technology Center 2700